

PATENT
514413-3849AMENDMENT

Please amend the application without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

In the Claims

- 1-23. (Cancelled)
24. (Currently amended) An isolated nucleic acid molecule encoding a protein with the function of a wheat isoamylase, selected from the group consisting of
 - (a) a nucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NO:3,
 - (b) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:2 or a part thereof or a ribonucleotide sequence corresponding thereto; and
 - (c) a nucleic acid molecule which hybridizes under stringent conditions with a nucleic acid molecule mentioned under (a) or (b) or is complementary thereto, and
 - (d) a nucleic acid molecule whose nucleotide sequence deviates from the sequence of a nucleic acid molecule mentioned under (a) or (b) (a), (b) or (c) owing to the degeneracy of the genetic code,
~~the nucleic acid molecule mentioned under (a), (c) and (d) having over 90% identity with SEQ ID NO:2, wherein the isolated nucleic acid molecule is isolated from wheat.~~
25. (Previously presented) The nucleic acid molecule as claimed in claim 24 which is a DNA molecule.
26. (Previously presented) The nucleic acid molecule as claimed in claim 25 which is a cDNA molecule.
27. (Previously presented) The nucleic acid molecule as claimed in claim 24 comprising regulatory elements.
28. (Previously presented) The nucleic acid molecule as claimed in claim 24 which is an RNA molecule.
29. (Cancelled)
30. (Cancelled)
31. (Previously presented) A vector containing the DNA molecule as claimed in claim 24.

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32. (Previously presented) The vector as claimed in claim 31, wherein said nucleic acid molecule is operably linked in sense orientation to regulatory elements which ensure transcription and synthesis of a translatable RNA in prokaryotic or eukaryotic cells.

33. (Cancelled)

34. (Cancelled)

35. (Previously presented) A host cell which is transformed with the nucleic acid molecule as claimed in claim 24 or a vector as claimed in claim 31 or a cell which is derived from the host cell.

36. (Previously presented) A process for the preparation of a protein encoded by the nucleic acid molecule as claimed in claim 24, wherein a host cell as claimed in claim 35 is cultured under conditions which permit said protein to be synthesized and said protein is isolated from the cultured cells and/or the culture medium.

37. (Previously presented) A process for generating a transgenic plant cell, wherein

- a) the nucleic acid molecule as claimed in claim 24 or
- b) the vector as claimed in claim 31

is integrated into the genome of a plant cell.

38. (Previously presented) A transgenic plant cell which has been transformed with the nucleic acid molecule as claimed in claim 24 or with the vector as claimed in claim 31 or a cell which is derived from the transgenic plant cell.

39. (Previously presented) A process for generating a transgenic plant cell, wherein

- a1) the nucleic acid molecule as claimed in claim 24 or
- a2) the vector as claimed in claim 31 is integrated into the genome of a plant cell and
- b) an intact plant is regenerated from said plant cell.

40. (Previously presented) A plant containing the plant cell as claimed in claim 38.

41. (Previously presented) The plant as claimed in claim 40 which is a crop plant.

42. (Previously presented) The plant as claimed in claim 41 which is a starch-storing plant.

43. (Previously presented) The plant as claimed in claim 42 which is a monocotyledonous plant or maize.

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44. (Previously presented) The plant as claimed in claim 43 which is a barley, rye or wheat plant.

45. (Previously presented) Propagation material of the plant as claimed in claim 40.

46. (Previously presented) A process for the production of starch comprising isolating starch from the plant cell as claimed in claim 38, the plant as claimed in claim 40 or the propagation material as claimed in claim 45.

47-53. (Cancelled)

54. (New) An isolated nucleic acid molecule which hybridizes with the complement of the nucleic acid molecule of claim 24, wherein the hybridization conditions comprise a hybridization temperature of 68°C, a hybridization buffer salt concentration of 5X SSC, a wash temperature of 68°C, and a wash buffer salt concentration of 0.5X SSC.